

**REMARKS**

Claims 1-9 and 11-20 are all the claims pending in the application.

Claims 1, 2, 4-9, 11, 12, 14 and 16-20 have been amended. Claims 1, 14 and 19 have been amended to incorporate claim 10, which has been canceled. In addition, claims 1, 2, 4-9, 11, 12, 14 and 16-20 have been amended to change "fine metal particles" to --fine particles of metal-- for purposes of consistency with claim 8, which recites "fine particles of nickel, silver...".

Entry of the above amendments is respectfully requested.

Initially, Applicants thank the Examiner for indicating that claims 9, 18 and 20 are allowable if rewritten in independent form.

**I. Response to Rejection of Claims 1-9 and 12-20 under 35 U.S.C. § 112, first paragraph**

Claims 1-9 and 12-20 are rejected under 35 U.S.C. §112, first paragraph.

The Examiner asserts that the specification, while being enabling for the average particle diameter of the fine metal particles is 1 to 3000 nm, does not reasonably provide enablement for the particles outside the disclosed range. Thus, the specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. See page 7, lines 4-11 in the specification.

Applicants respectfully traverse the rejection.

It is respectfully submitted that the specification provides sufficient description, guidance and working examples for one of ordinary skill in the art to be able to practice the full scope of the present invention.

The test of enablement is whether the disclosure in the specification is sufficient to enable one of ordinary skill in the art to practice the claimed invention without undue experimentation. The fact that experimentation is necessary is not conclusive of non-enablement but any necessary experiment should not be undue. Further, a specification may be enabling without any working examples. See MPEP 2164.02.

In this case, the present specification discloses that a first aspect of the present invention is a method for forming a liquid crystal display comprising providing a liquid crystal display substrate; and forming a light-shielding film for a display on the liquid crystal display substrate by coating the liquid crystal display substrate with a coating liquid including a binder and fine metal particles dispersed in the binder, followed by drying. *See* page 5, first full paragraph. The coating liquid that includes a binder and fine metal particles (preferably having a particle size of 1 to 3000 nm, and disclosing disadvantages of using particles having a diameter of less than 1 nm or exceeding 3000 nm) is discussed at pages 6-14 of the specification. *See also* page 13-14. The substrate for the liquid crystal display is discussed at page 13 of the specification. Methods of coating are discussed at pages 14-16 of the present specification.

In addition, the specification contains Examples in which a light-shielding film for a display is formed on the liquid crystal display substrate by coating a liquid crystal display substrate with a coating liquid including a binder and fine metal particles dispersed in the binder, and drying the coating.

Given the disclosure discussed above, the specification does enable a person skilled in the art to make and use the invention, without undue experimentation.

Further, even though the 1-3000 nm range is preferred, the claimed invention does not need to be limited to only preferred embodiments but rather can also include non-preferred embodiments which can be made and used.

Nonetheless, to advance prosecution, independent claims 1, 14 and 19 have been amended to recite an average particle diameter of 1 to 3000 nm.

In view of the above, withdrawal of the rejection is respectfully requested.

**II. Response to Rejection of Claims 1-8, 10-17 and 19 in view of Sega**

Claims 1-3, 6-8, 10-12 and 14-15 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Sega et al. (US 6,001,533).

In addition, claims 4-5, 13, 16-17 and 19 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Sega et al. (US 6,001,533).

Applicants respectfully traverse the rejection.

Sega is cited as disclosing a composition for forming a non-conductive light-shielding layer, which comprises an alkali-soluble binder, a pigment, a photopolymerizable monomer, a photo-polymerization initiator and a solvent. The pigment comprises fine particles of a double oxide selected from  $\text{CuMn}_2\text{O}_4$  and Mn is substituted with Fe, Co and/or Ni and the particle diameter of these pigments is in the range of 0.01 to 0.5  $\mu\text{m}$  (10 to 500 nm). The non-conductive light-shielding layer can be formed on a substrate by coating the composition for forming a non-conductive light-shielding layer onto the substrate and then dried. The methods for coating the composition include a spinner, roll coater, curtain coater and extruder. See col. 9, lines 36-48 and the reference Examples.

The present invention according to claim 1 is a method for forming a liquid crystal display comprising: providing a liquid crystal display substrate; and forming a light-shielding film for a display on the liquid crystal display substrate by coating the liquid crystal display substrate with a coating liquid containing a binder and fine particles of metal dispersed in the binder, followed by drying, wherein the average particle diameter of the fine particles of metal is 1 to 3000 nm. In addition, the present invention according to claim 14 is a method for forming a liquid crystal display comprising: providing a liquid crystal display substrate; and forming a light-shielding film for a display on the liquid crystal display substrate by coating the liquid crystal display substrate with a coating liquid containing a binder, fine particles of metal dispersed in the binder and a dispersant, followed by drying, wherein the average particle diameter of the fine particles of metal is 1 to 3000 nm. Further, the present invention according to claim 19 is a method for forming a liquid crystal display comprising: providing a liquid crystal display substrate; and forming a light-shielding film for a display on the liquid crystal display substrate by coating the liquid crystal display substrate with a coating liquid containing a binder, fine particles of metal dispersed in the binder and a dispersant, drying an obtained layer, forming a protective layer on the obtained layer, and exposing the protective layer to light, wherein the average particle diameter of the fine particles of metal is 1 to 3000 nm.

The present invention uses fine particles of a metal. For example, fine particles of silver, as opposed to particles of a metal oxide, are used in the present invention. *See e.g.*, page 6, third full paragraph; paragraph bridging pages 7 and 8; and Example 1. In addition, the particles of silver, nickel, copper, gold and platinum are electrical conductors whereas the metal oxide particles are electrical insulators. Therefore, the fine particles of the present

invention are different from the metal oxide particles of Sega.

Accordingly, Sega does not anticipate or render obvious claims 1, 14 or 19.

Further, each of claims 2-8, 11-13, and 15-17 depend, directly or indirectly, from claims 1 or 14. Thus, it is respectfully submitted that these claims are patentable for at least the same reasons as claims 1 or 14.

In view of the above, withdrawal of the rejection is respectfully requested.

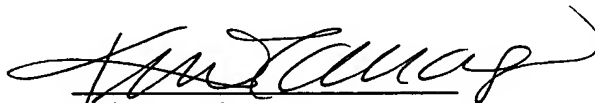
**II. Conclusion**

For the above reasons, reconsideration and allowance of claims 1-9 and 11-20 is respectfully requested.

If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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